

Brociner Mark 10 Integrated Audio Amplifier— Fen-Tone Anti-Static Pickup, Model 350A+

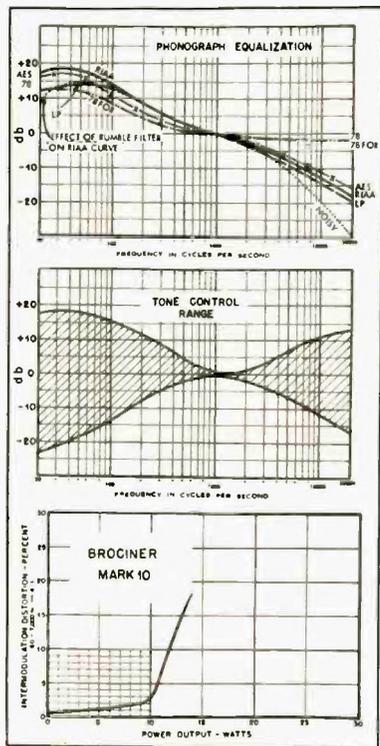


Fig. 1. Performance curves for the Brociner Mark 10 amplifier.

IN A FIELD which includes dozens of medium-powered amplifiers, there is always room for one more, particularly when its specifications and performance come up to the standards exhibited by the Brociner Mark 10. Physically it is 4 3/4 in. high, 10 1/2 in. long, and 8 in. deep, and is thus small enough for the most modest installation. The front panel is 3 x 10 9/16 in. and mounts with only the control shafts passing through the cabinet, if desired, or it may be used in the open in its attractive maroon-and-gold-finished case which is perforated for ventilation.

The amplifier employs a printed circuit chassis on which all tubes are mounted, together with most of the resistors and capacitors—all, in fact, except those directly associated with the equalization and tone controls. Low-noise resistors are used in the preamplifier section, and coupling and bypass capacitors are tropicalized. The power supply section employs a choke for greater filtering, and the heaters of all tubes are biased 22 volts positive to reduce hum from that source to a mini-

mum. On the whole, the amplifier is designed along good engineering principles and does not rely on "gimmicks" for its performance.

Performance curves are shown in Fig. 1, with the six phonograph equalization positions in the upper portion, tone control range in the center, and intermodulation distortion in the lower. The effect of the rumble filter on the RIAA curve is shown, although the same reduction of extreme low-frequency response can be had with any of the phono settings. The tape-recorder feed jack is connected electrically just following the tone-control section, and while the tone controls do affect frequency response, the volume control does not. The secondary of the output transformer is so arranged that most of the winding is in use regardless of load impedance, a practice which improves coupling with a resulting increase in stability.

For a 1-watt output, an input of 0.55 volts is required on the RADIO, TAPE PLAY, and TV jacks; the same output is obtained in the phono positions from an input of

PARTS LIST FOR THE MARK 10 AMPLIFIER

| | | | | | |
|---------------|---------|---------------|---------|---------------|------------------|
| R1 | 27 K | R24, R38 | 100 K | C3, C5, C17 | 02 |
| R2, R3, R6 | 4.7 meg | R26 | 560 | C6, C8 | 03 |
| R4, R5, R9 | 62 K | R27 | 3300 | C7, C21 | 01 |
| R7, R14, R21 | 1.0 meg | R28 | 820 | C9, C10 | 330 μmf |
| R8, R30, R31 | 220 K | R29, R34, R36 | 270 K | C11 | 1000 μmf |
| R10 | 10 K | R33, R37 | 1000 | C12 | .0039 |
| R11, R12, R13 | 100 K | R35 | 300, 5w | C14, C24, C25 | 0.1 |
| R15, R22, R25 | 47 K | P1, P2 | 1.0 meg | C15, C22 | .05 |
| R16 | 6800 | P3 | 500 K | C16, C18 | .0025 |
| R17, R20 | 1600 | P4 | 500 | C23 | 350 μmf |
| R18, R19 | 100 K | C1, C19, C20 | 220 μmf | C26 | 20-20/450, 50/50 |
| R23, R32 | 22 K | C2, C4, C13 | 05 | C27 | 10-20-20/450 |

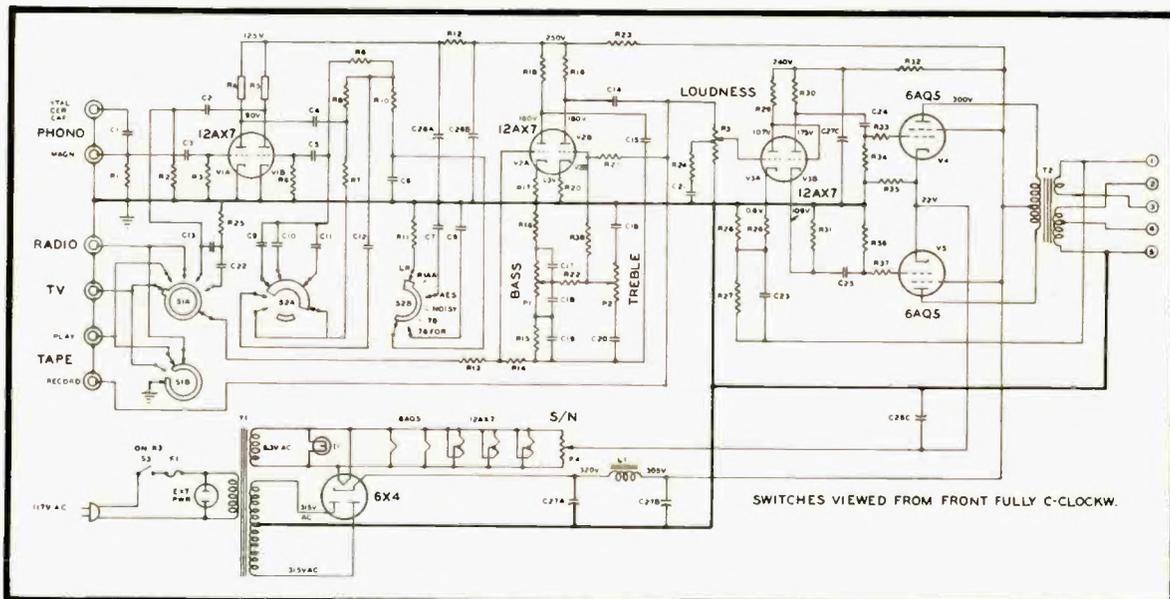


Fig. 2. Schematic of the Mark 10. Parts values are tabulated above.